A CASE OF CHRONIC SUPPURATIVE DISEASE OF BOTH FRONTAL SINUSES—OF BOTH MAXILLARY ANTRA —THE ETHMOID CELLS ON THE RIGHT SIDE OF THE SPHENOIDAL ANTRUM — WITH DEMONSTRATION OF PATHOLOGIC SPECIMENS.*

By REDMOND PAYNE, M. D,
Oculist, Aurist and Laryngologist to the Southern Pacific Hospital, San Francisco.

Operations and Recovery.

BECAUSE of the very complicated character of this case, nearly all the accessory cavities having been involved at the same time, I consider it worth reporting to you.

The patient, Miss D, age 30, had been suffering from severe headaches, frontal and occipital, for 10 or 12 years, which were often associated with vomiting and fever and regarded as sick headaches. About five years ago in one of these attacks, the nose became slightly swollen and the right lower eyelid edematous, all of which subsided as the attack passed off. The attacks since that time have been more frequent all the way from every six months to every six weeks, each attack lasting 10 days or two weeks. Sometimes the upper lid of the right eye also being edematous. This would subside after the attack, but the nose, especially the end, remained enlarged and reddened. In one or two recent attacks the skin on the right side of the face and nose and eyelids became greatly swollen and glazed, the skin peeling off as after an erysipelas. Between these severe attacks she was never free from pain, it being greatest at the occiput, and there was also a constant sensation of pressure across the nasal bones and over the frontal sinuses, at times over the whole face; for several months past there has been an afternoon temperature, at times 101.

So much for the conditions that were present, externally and subjectively, all of which would have suggested at once to the rhinologist that an accessory sinus was at the bottom of it and he would have proceeded to explore the nasal chambers accordingly. In this case it will be interesting to note what was not present. There was no mouth breathing, the naso-pharynx and nasal chambers were perfectly free. There was no discharge or history of discharge, either anteriorly or posteriorly. There were no polypi, or polypoid degeneration of any portion of the mucus membrane of the nose proper; the inferior turbinates on both sides were normal, the middle turbinate on the left side slightly hypertrophied and that on the right side (where we had the most trouble) was considerably hypertrophied and edematous. Trans-illumination gave both antra and both frontal sinuses uniformly dark, so that its information was negative. We were left with but one definite localizing sign, that was the edema of the eyelids and internal canthus of the right eye, which was strongly suggestive that the ethmoid cells were involved.

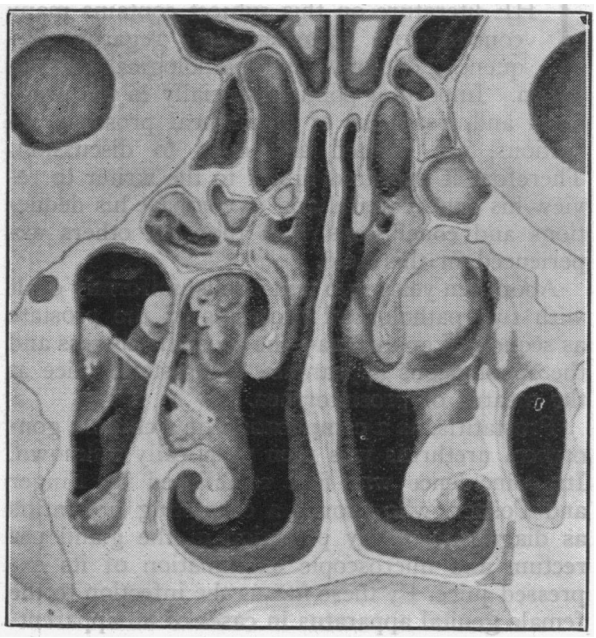
Proceeding upon this conclusion, the right middle turbinate was removed completely and the anterior wall of the ethmoid cells broken down, with considerable relief to the pain, but otherwise no change except to show that pus was coming from the infundibulum and probably from the maxillary ostium; as only a drop or two appeared in the field, however, an exploratory opening was made through the canine fossa of both antra with the result that a drachm of creamy pus flowed from each one. From the right antrum I took this large quantity of granulation tissue and polypi, probably one-half ounce, and from the right frontal sinus, which was opened in front, the infundibulum freely enlarged into the nose, I took this large serous cyst in addition to quite a quantity of small polypi and granulations. Through the right frontal sinus I opened the posterior ethmoid cells more freely than had been done through the nose, removing several polypi, which I did not save. There was a small quantity of pus from both the frontal sinus and the cells. All the symptoms subsided in a few weeks except the pain at the occiput, and some edema remained at the internal canthus. In spite of the very thorough curettment of these sinuses, the pus discharge continued very profuse—two hours after irrigation of the right antrum I found it again filled with pus—but when the frontal sinuses and antrum were irrigated the latter did not refill for 12 to 24 hours. Here was an indication at once that the frontal sinus communicated with the antrum. There was but one source for the pus and that was the left frontal sinus, which I then opened, finding quite a quantity of small polypi and granulations and a small quantity of pus in the infundibulum. The infundibulum was enlarged into the nose. At this operation, which was two months after the first, I re-curetted both antra and the other sinus and posterior ethmoid cells, the granulating areas of which were infected by the pus running over them. From this time on the sinuses operated on went on to complete recovery. All the symptoms subsided except, as after the first operation, the occipital headache, which still persisted. I then regarded the sphenoidal antrum and anterior ethmoid cells not already reached as probably also involved, and accordingly laid open freely the anterior walls and broke down the floor with a curette. This was done under cocaine, and was followed with entire relief from occipital pain and the sensation of pressure, in a very few days. The patient has made practically a complete recovery, is free from all headache and fever, has gained in flesh and general health, the nose has become normal in size and color, etc. Before the eyelids became prominently affected, the headaches were considered as due to a condition of the stomach requiring lavage, which treatment was carried out for several months. This not being effective, the pelvis was held responsible, the uterus curetted and an ovariotomy done. I have no reason to believe but that both these conditions were present and the treatment indicated, but the symptoms for which both were done were the severe and continuous headaches.

This case is reported, not because the condition is unusual, but on the contrary that it is rather common. About the only very uncommon feature about the case is the involvment of nearly all the sinuses in the one patient. This case simply serves to prove the rule in chronic suppurative disease of the accessory sinuses, viz.: that they are usually filled with polypi, granulations, connective tissue bands, and lined by a pyogenic membrane which can be treated effectively only by methods of operation that will enable one to explore every wall of the sinus operated upon.

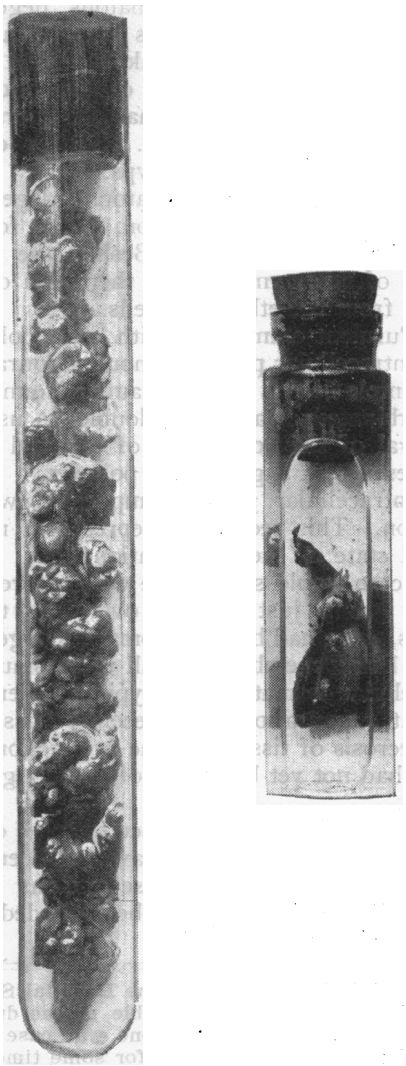
Take, for example, the management of chronic empyema of the maxillary antrum. Our diagnosis

* Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

must exclude the possibility of other sinuses draining into it, then, unless some tooth is distinctly the cause of the trouble, the operation should consist in making a large opening through the canine fossa and enlarging the normal nasal



ostium freely; this enables one with a head mirror and ear speculum to examine every wall of the antrum carefully and accurately; the No. 1, laryngeal mirror can be used to explore the anterior wall. This, to my mind, is the only accurate and satisfactory method of operation in such cases; because it is not followed, and the cure attempted through an opening in the alveolus, I believe explains the many failures, and years of unsatisfactory treatment of antral disease. There are two or three matters of detail in the after-treatment of these cases that I think are of importance. I have not found the indefinite injection of solutions of silver salts of the slightest value. My best results have been by using a 1 per cent. carbolic in 4 per cent. boracic acid solution as an irrigant, for its anesthetic and cleansant effect—it is very grateful to the patient. The most effective application is nitrate of silver one drachm to the ounce applied thoroughly into every recess of the antrum, then irrigated with 2 per cent. salt solution twice daily. This application is made every third or fourth day until the pus secretion ceases. I usually pack the antrum daily for the first week ,then insert a silver plug; this is not dispensed with until the antrum remains perfectly dry for ten days. The same general considerations apply to the frontal sinuses; instead of silver plugs I use a curved and fenestrated silver drainage tube. It is removed daily for irrigation and cleansing until the sinus is completely filled with granulation tissue and obliterated, when it can be removed. If, however, no extensive degeneration of the lining membrane has taken place, the external wound can be closed at once and simple irrigation carried on through the nasal openings. Treatment of the empyema of the ethmoid cells and the sphenoidal antrum simply requires the thorough removal of the anterior and inferior walls, which is readily done, if the middle turbinate is completely removed. In this case there was nothing to indicate that the sphenoidal antrum was involved except the persistence of the occipital pain and a subjective odor to the patient, the latter having become apparent since opening the ethmoid cells.



The Ogston-Luc operation on the frontal sinus is the one made in this case, and the one I prefer, since I think it affords one a better opportunity for exploring both sinuses. There are a variety of methods of operating, that of Czerny, Jansen,

Kuhnt and others, but the Ogston-Luc probably meets the indications of most chronic cases. There are several points that are very interesting in this case. First: The number of sinuses involved and the long duration of the trouble. Second: The absence of discharge into the nasal cavities. Third: The absence of polypi within the nasal cavities. Fourth: The communication of one sinus with another, viz.: that the right frontal sinus discharged into the antrum, and I am rather of the opinion that the posterior ethmoid cells did also.

There are a variety of forms of accessory sinus disease, and I think Bosworth's classification covers best the cases one meets clinically. He divides them into five groups:

1. Where there is myxomatous degeneration without suppuration. In this class of cases there are no polyps, properly speaking, but a swelling of the mucus membrane of the middle turbinated, which is soft and has the characteristic color of myxomatous tissue. Such a condition is generally a prelude to polyps.

2. Extracellular myxomatous degeneration, with intracellular suppuration. This form succeeds the last mentioned. Besides the transformation of mucus membrane, there is a discharge of pus from the ethmoidal cells.

3. Purulent ethmoiditis with nasal polyps.

4. Intracellular polpys without suppuration. In an example of this type, the author found a middle turbinated enlarged to double its usual size. Removal of the bony layer of ethmoid revealed the presence of a gelatinous polypus.

5. Intracellular polypi complicated with suppuration. This seemed to represent a more advanced state of the last mentioned.

My case would seem to be well covered by the fourth group just passing over into the fifth. That is, there had been myxomatous degeneration of the lining membrane of all these sinuses with intracellular formation of polypi for several years, without suppuration, only recently passing over into necrosis of tissue and the production of pus, which had not yet become profuse enough to discharge.

One finds frequent reference to cases of closed ethmoidal empyema, but I have not been able to find any reference to a case such as I report, where all the sinuses could be regarded as in a state of closed empyema.

The Public Health and Marine Hospital Service reports three deaths from probable plague during the month of January. The last one was case 113. No infected rats have been found for some time, though numbers of them are caught and examined for pest infection.

It is said that there are now 29,200 doctors in Germany, the number having more than doubled since 1876; in the same period the population has increased only one-sixth.

OBSERVATIONS ON THE PROSTATE GLAND IN ITS RELATION TO GONORRHEA.*

By MARTIN KROTOSZYNER, M. D., San Francisco.

THE literature on this subject contains many contradictory statements as regards frequency, etiology, and pathological classification. Important points, especially in the prognosis and treatment of gonorrheal prostatic affections, are mooted and open to discussion. Therefore it appeared timely to the writer to review his own material and to compare his deductions and conclusions with those of others experienced in this field.

About ten years ago text-books uniformly dealt with two pathological processes of the prostate as sequels of gonorrhea—the prostatic abscess and the spontaneous appearance of prostatic juice at the meatus or prostatorrhea.

Prostatitis, as a complication of a chronic gonorrheal urethritis was then practically unknown. Its coincidence was first established by Finger and Posner, who proved a coexisting prostatitis as diagnosticable by palpation of the gland per rectum and microscopic examination of its expressed juice. By these means the infection to the female genital apparatus in cases of an apparently cured chronic gororrhea could be traced to the secretion of the diseased prostate pressed out at the moment of ejaculation. The anatomic basis for Posner's investigations was furnished by Finger, who in a number of cadavers of men, in which ante mortem a chronic urethritis was observed, found the prostate gland to be the seat of periglandular as well as endoglandular infiltrations. Particularly important was the fact that in a large percentage of cases examined an obstruction of the ejaculatory ducts by invasion of round-cells was found as a proof of retained inflammatory and infectious material that at any provocation, especially in cohabitation, could be thrown to the surface.

In the majority of instances it is unfortunately impossible to ascertain the onset of gonorrheal prostatitis, no characteristic or pathagnomonic symptom pointing to the invasion of the prostate. The diagnosis of a coexisting prostatitis in gonorrheal urethritis cannot be made through clinical observations, but must be established by palpation of the prostate and macro- and microscopic examination of its secretion. Again and again one will be confronted with cases where no symptoms, or very vague symptoms, difficult in their interpretation in connection with any particular organ of the genito-urinary tract, are present, and where the palpatory evidence of the gland and careful examination of the juice will demonstrate pathological material of appalling gravity.

* Read before the San Francisco County Medical Society.